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10/695,127	10/28/2003	Mark Thomas Endicott		6108

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EXAMINER

BAREFORD, KATHERINE A

ART UNIT	PAPER NUMBER
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1762

DATE MAILED: 02/16/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

LD

**Office Action Summary****Application No.**

10/695,127

**Applicant(s)**

ENDICOTT ET AL.

**Examiner**

Katherine A. Bareford

**Art Unit**

1762

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |                                                                                                                        |                                                                                         |
|------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                            | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____.                                                |

## DETAILED ACTION

### *Specification*

1. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required:

(1) the features of claims 1 and 6 that the wheel is metallic need to be provided in the specification;

(2) the features of claims 2 and 10 as to the specific wheel type need to be provided in the specification;

(3) the features of claims 3, 7 and 11 as to the use of metal or a composite need to be provided in the specification (see paragraph 006);

(4) the features of claims 4, 8 and 12 as to the specific spraying technique need to be provided in the specification (paragraph 006 does not provide all the listed techniques);

(5) the features of claims 9 and 14 as to how roughening alone will provide the desired features need to be provided in the specification;

(6) the features of claim 14 as to machining or otherwise mechanically treating the bead seat need to be provided in the specification (see paragraph 006).

### *Claim Rejections - 35 USC § 112*

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

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The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 9-10 and 14<sup>are</sup> rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for providing a coating with a rough surface of "rough, hard material" on a bead seat, does not reasonably provide enablement for providing the wheel with simply a rough surface. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention commensurate in scope with these claims.

The specification (see paragraphs 002, 004, 006, etc.) indicates that the invention provides for a coating of a hard, rough material on the bead seat. There is no indication that the benefits of the invention can be provided by any other surface, including by simply roughening the surface of the bead seat of the wheel. However, this simple roughening is allowed by claims 9-10 and 14. As a result, one of ordinary skill in the art would have to perform undue experimentation to determine if rough surfaces formed other than by coating a hard, rough material can provide the desired slippage prevention.

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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5. Claims 1-14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1, line 2, after “metallic wheel”, applicant should insert “with a bead seat” to provide proper antecedent basis for “the bead seat” of line 3.

Claim 1, line 3, “rough, hard material” is vague and indefinite as provided, because it is unclear how textured the surface must be to be considered “rough” and it also unclear what hardness is required to be considered “hard”.

Claim 2, lines 1-2, “consisting essentially of” should be “consisting of” to provide a proper Markush group wording of “selected from the group consisting of”. Otherwise it is unclear what other members can be part of the group.

Claim 3, line 2, “consisting essentially of” should be “consisting of” to provide a proper Markush group wording of “selected from the group consisting of”. Otherwise it is unclear what other members can be part of the group.

Claim 4, line 2, “consisting essentially of” should be “consisting of” to provide a proper Markush group wording of “selected from the group consisting of”. Otherwise it is unclear what other members can be part of the group.

Claim 5, lines 1-2, it is unclear as worded whether the “rough, hard coating” is to be applied over the adhesive or whether the adhesive is the “rough, hard coating”.

Claim 6, line 2, after “metallic wheel”, applicant should insert “with a bead seat” to provide proper antecedent basis for “the bead seat” of line 3.

6, line 5, "rough, hard material" is vague and indefinite as provided, because it is unclear how textured the surface must be to be considered "rough" and it also unclear what hardness is required to be considered "hard".

Claim 7, lines 1-2, "consisting essentially of" should be "consisting of" to provide a proper Markush group wording of "selected from the group consisting of". Otherwise it is unclear what other members can be part of the group.

Claim 8, line 2, "consisting essentially of" should be "consisting of" to provide a proper Markush group wording of "selected from the group consisting of". Otherwise it is unclear what other members can be part of the group.

Claim 9, line 1, "the bead seat" lacks antecedent basis as worded. Line 1 would be clearer as "A vehicle wheel with a bead seat in which the surface of the bead seat of said wheel is rough, whereby. . .".

WS Claim 9, <sup>line</sup> ~~line~~ 1, "rough" is unclear as to how textured the surface must be to be considered rough.

Claims 10, 11, 12, 13 and 14, all of these claims depend from claim 9, which is a product claim (the wheel), but these claims indicate that the claims are "the method of claim 9". It is improper for a method claim to depend from a product claim. For the purposes of examination, the Examiner is treating these claims as product claims ("the wheel of claim 9 . . .").

Claim 10, lines 1-2, "consisting essentially of" should be "consisting of" to provide a proper Markush group wording of "selected from the group consisting of". Otherwise it is unclear what other members can be part of the group.

Claim 11, line 2, "consisting essentially of" should be "consisting of" to provide a proper Markush group wording of "selected from the group consisting of". Otherwise it is unclear what other members can be part of the group.

Claim 12, line 2, "consisting essentially of" should be "consisting of" to provide a proper Markush group wording of "selected from the group consisting of". Otherwise it is unclear what other members can be part of the group.

Claim 13, it is unclear as worded whether the "coating" is to be applied over the adhesive or whether the adhesive is the "coating".

*Claim Rejections - 35 USC § 102*

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1, 3, 4, 9, 11 and 12 are rejected under 35 U.S.C. 102(b) as being anticipated by Wei et al (US 5569496).

Claim 1: Wei teaches a method of reducing the slip of a tire on a vehicle wheel. Column 4, lines 60-68. A metallic wheel is provided. Column 2, lines 45-65. The wheel has a bead

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seat. Column 2, lines 55-65 and figure 3. The surface of the bead seat is coated with a material. Column 4, lines 30-68. The material is hard. Column 4, lines 50-60 (metal). The material is rough. Column 4, lines 60-68 (the material is rougher than the wheel surface). The friction between the tire and the wheel is increased, thus reducing slip. Column 4, lines 60-68.

Claims 3, 11: the coating can be metal. Column 4, lines 50-60.

Claims 4, 12: the coating can be by plasma spraying. Column 4, lines 53-55.

Claim 9: by following the process of Wei as in claim 1 above, a vehicle wheel is provided with a rough surface on the bead seat. Column 4, lines 30-68.

### *Claim Rejections - 35 USC § 103*

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later



invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

10. Claims 2, 6-8, 10 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wei as applied to claims 1, 3-4, 9, 11 and 12 above, and further in view of Kaufold et al (US 2004/0142109).

It is noted that the effective date of Kaufold extends back to Sept. 25, 2002, as all of the material relied upon of Kaufold in the rejection below also is provided in provisional application 60/413,359 from which Kaufold claims priority.

Wei teaches all the features of these claims except that (1) the wheel is a truck wheel, etc. (claims 2, 10), (2) that the surface is abrasively blasted prior to coating (claims 6-8 and 14).

However, Kaufold teaches a method of coating a vehicle wheel. Paragraph [0009]. A metallic wheel is provided. Paragraph [0010]. The wheel has a bead seat. Figure 2 and paragraph [0010]. The surface of the bead seat is coated with a material, such as a metal. Paragraphs [0028] – [0031]. The coating can be applied by thermal spraying, such as by plasma spraying. Paragraph [0035]. The vehicle wheel can be a truck wheel. Paragraph [0003]. Prior to thermal spraying the bead seat, the surface can be abrasively blasted (thus roughening the surface) to prepare the surface for thermal spraying. Paragraphs [0009] and [0036].

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Wei to use a truck wheel as the vehicle wheel as suggested by Kaufold with the expectation of providing a desirable truck wheel, because Wei teaches a treatment for a vehicle wheel to desirably hold the tire in contact with the wheel rim and Kaufold teaches that a wheel

with a wheel rim holding a tire can desirably be a truck wheel. Furthermore, it would have been obvious to modify Wei to abrasively blast the surface of the wheel prior to applying the coating as suggested by Kaufold in order to provide a desirably coated surface, because Wei teaches a method of thermal spraying a coating to tire bead seats in wheels and Kaufold teaches that when thermal spraying a coating to tire bead seats in wheels, it can be desirable to abrasively blast the surface prior to spraying to prepare the surface for spraying.

11. Claims 1, 3, 5, 9, 11 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Japan 2002-178723 (hereinafter '723) in view of Wei et al (US 5569496).

Claim 1: '723 teaches a method of reducing the slip of a tire on a vehicle wheel. Abstract and paragraphs [0008] and [0020]. A wheel is provided. Abstract. The wheel has a bead seat. Abstract and figures 1-2. The surface of the bead seat is coated with a material. Abstract and paragraphs [0013]—[0014]. The material is hard. Paragraphs [0017] and [0020] (the adhesive hardens and it can also contain hard particles). The friction between the tire and the wheel is increased, thus reducing slip. Paragraphs [0008] and [0020].

Claims 3, 11: the coating can be a composite. Paragraph [0020] (the polymer adhesive plus hard particles).

Claims 5, 13: the coating can be an adhesive. Abstract (thus providing the coating by means of an adhesive).

Claim 9: by following the process of '723 as in claim 1 above, a vehicle wheel is provided with a coating surface on the bead seat. Abstract and figures 1-2.

'723 teaches all the features of these claims except (1) that the wheel is metallic and (2) that the coating is rough.

However, Wei teaches a method of reducing the slip of a tire on a vehicle wheel. Column 4, lines 60-68. A metallic wheel is provided. Column 2, lines 45-65. The wheel has a bead seat. Column 2, lines 55-65 and figure 3. The surface of the bead seat is coated with a material. Column 4, lines 30-68. The material is hard. Column 4, lines 50-60 (metal). The material is rough. Column 4, lines 60-68 (the material is rougher than the wheel surface). The friction between the tire and the wheel is increased, thus reducing slip. Column 4, lines 60-68.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify '723 to use a metallic wheel as suggested by Wei with the expectation of providing a desirable wheel, because '723 teaches a treatment for a vehicle wheel to desirably hold the tire in contact with the wheel rim and Wei teaches that a wheel with a wheel rim holding a tire can desirably be a metallic. Furthermore, it would have been obvious to modify '723 to provide a rough surface on the coating as suggested by Wei in order to provide a desirably coated surface, because '723 teaches a treatment for a vehicle wheel to desirably hold the tire in contact with the wheel rim and prevent <sup>slippage</sup> and Wei teaches when providing treatment for a vehicle wheel to desirably hold the tire in contact with the wheel rim, it is desirable to make the coating surface rougher than the wheel surface to help prevent slippage.

### *Conclusion*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Katherine A. Bareford whose telephone number is (571) 272-1413. The examiner can normally be reached on M-F(6:30-4:00) with the First Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Shrive P. Beck can be reached on (571) 272-1415. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9306 for regular communications and for After Final communications.

Other inquiries can be directed to the Tech Center 1700 telephone number at (571) 272-1700.

Furthermore, information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
**KATHERINE BAREFORD**  
**PRIMARY EXAMINER**